NORTHWOODS JOURNAL – MAY 2023

A Free Publication about Enjoying and Protecting Marinette County's Outdoor Life

In This Issue:

Northwoods Journal Online

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When You Should - and Should Not - Rescue Baby Birds

https://www.audubon.org/news/when-you-should-and-should-not-rescue-baby-birds

Most fledglings don't need to be rescued. "Eighty percent of baby birds that come in have basically just been kidnapped," says Melanie Furr, education director at the Atlanta Audubon Society and a licensed volunteer at Atlanta Wild Animal Rescue Effort. "They need to be taken back."

Wandering from the nest is exactly what fledglings - which are just learning to fly - are supposed to do. It's a normal part of a bird's development, and though these chicks might appear abandoned, they're likely under surveillance by their parents nearby. Of course, there is a chance that they could be injured, sick, or in danger, so there are some cases where a fledgling might require assistance.

Nestlings, on the other hand, are almost always in need of the rescue. Whether they fell or got pushed from their nest, they're "not ready to go off into the world," says Rita McMahon, Co-Founder and Director Wild Bird Fund, a nonprofit animal rehab center in New York. To know when you should intervene - and how you can help if needed - ask yourself the questions below.

Is the bird a nestling or fledgling?

When you come across a rogue baby, first determine its age, McMahon says. And there's one obvious sign: feathers. While fledglings are larger and covered almost completely in down and feathers, nestlings are small and typically naked, or with just a few fluffs. In other words, one looks like an awkward young bird, and the other kind of looks like a pink little alien. You can also distinguish age by movement: fledglings can hop, whereas nestlings might simply drag themselves on the ground by their bare wings.

If you've found a *healthy* fledgling: "Walk away from the bird," McMahon says. Rescuing healthy fledglings is not only unnecessary, but it can be detrimental to their development. When raised by hand, she says, babies might confuse humans as their parents (not unlike the geese in the movie *Fly Away Home*). If that happens, "they don't know how to be a bird," McMahon says.

If you've found a *nestling*: Help. First, look for the baby's nest in the nearby bushes or trees; if you find it, simply put the chick back and the parents will resume care. ***And don't worry about touching the bird: The idea that once you've touched a baby bird it will be rejected is not true***, says Susan Elbin, director of conservation and science at New York City Audubon. "Birds have a sense of smell, but it's not very well developed," Elbin says. "They're not going to abandon their chick."

If the nest is nowhere to be found or simply out of reach, just craft one yourself, Furr says. Find a small container, like a strawberry basket, and load it with a scrap of T-shirt or some straw—anything dry will do. Gently place the youngling inside, and affix the artificial nest in a tree close to where the bird was found. "You want to get it as high up as possible," Furr says.

Once you've returned the bird to a nest—whether real or homemade—keep an eye out for the parents. If they don't return within an hour, call a wildlife rehabilitation center.

Is the bird sick, wounded, or at risk?

Whether you come across a fledgling or nestling, it's important to assess whether the bird needs medical help or is in danger. Often, it's clear when the bird is in need of urgent care—if the cat dragged it in, that's a sure sign. Other times the the signals are more subtle: Though it's a fledgling, it can't stand or hop normally.

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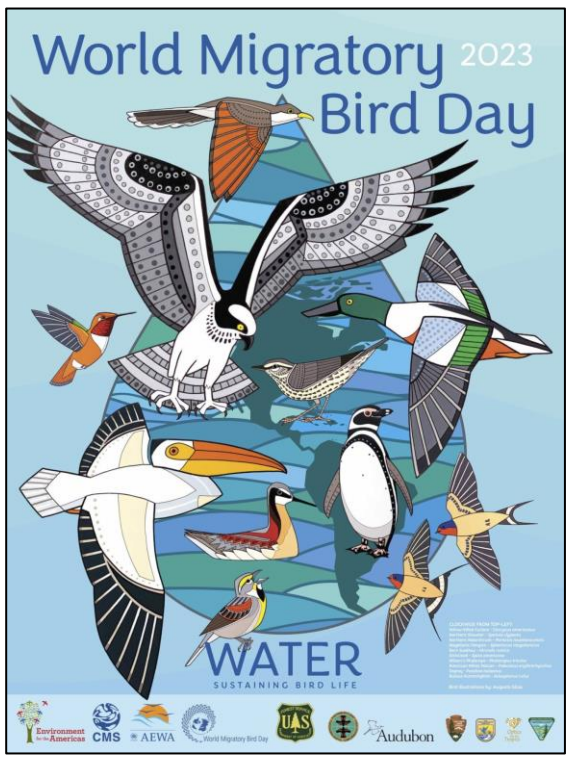
World Migratory Bird Day is May 14th!

Excerpts from https://www.migratorybirdday.org/



World Migratory Bird is an annual global awareness-raising campaign to celebrate the amazing journeys of migratory birds, and to inspire worldwide conservation of migratory birds and their habitats. Traditionally observed on the second Saturday of May and October, the two days of World Migratory Bird Day are a way to reflect the cyclical nature of bird migration as well as the fact that there are varying peak migration periods in the northern and southern hemispheres. However, every day is Bird Day, and you can celebrate birds and host events any day of the year!

History of WMBD

In 1993, the Smithsonian Migratory Bird Center created International Migratory Bird Day (IMBD). This educational campaign focused on the Western Hemisphere celebrated its 25th year in 2018. Since 2007, IMBD has been coordinated by Environment for the Americas (EFTA), a non-profit organization that strives to connect people to bird conservation.

In 2018, IMBD joined forces with the Convention on Migratory Species (CMS) and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) to create the global event World Migratory Bird Day (WMBD) to unify our voices around the world for bird conservation.

World Migratory Bird Day 2023 focuses on water and its importance to bird life. Water is fundamental to sustaining life on our planet. Virtually all migratory birds rely on water and its associated habitats at some point during their life cycles. Lakes, rivers, streams, ponds, wetlands, and coastal waters are all vital for feeding, drinking, or nesting, and as places to rest and refuel during long seasonal migrations.

Unfortunately, these aquatic ecosystems are becoming increasingly threatened around the world, and so are the migratory birds that depend on them. The increasing human demand for water, as well as pollution and climate change, is having a direct impact on the quantity and quality of water resources and on the conservation status of many migratory bird species.

In 2023, the importance of water is the focus of World Migratory Bird Day. Throughout the year, we will spread the message that "water sustains bird life" and provide actions for managing water resources and protecting healthy aquatic ecosystems.

<u>World Migratory Bird Day Activities</u>

Host a bird walk and introduce information about the importance of water to birds. We offer all of the details you need with our education materials. Some facts you might want to share include:

- Water that falls to the earth supports plants that birds need
- A leaky faucet can drip up to 3,000 gallons of water per year
- Most of earth's water is salt water and is found in oceans and saline lakes
- Most fresh water found in glaciers, lakes, ponds, and streams is in the form of ice

Share simple ways that your event visitors can help conserve water. Create a table that includes low water use faucets and shower heads and don't forget the toilet! Include in your discussion the importance of turning off the tap while brushing teeth and other daily activities.

Explore! Offer hands-on activities to explore the plants and organisms that live in the water and provide the food many birds need to survive. Bring small nets, magnifying lenses, and some bowls for your samples, so that everyone can have a close-up look. Expand your discussion to include which birds eat the insects that develop in water or the plants that grow in ponds and lakes.

Set up bird feeders! You could go and find nature on World Migratory Bird Day, or you can bring nature to you! Putting feeders outside your house will attract all kinds of local birds looking for something to nosh. You can put out as many different kinds of food as you like - even sugar water for hummingbirds! Just make sure the local squirrels and cats don't come along to spoil the fun. For ideas and feeder types, visit https://wsobirds.org/images/pdfs/FS_bird_feeding.pdf.

Get involved with the Audubon Society. Since 1905, the National Audubon Society has been dedicated to the conservation, health, and welfare of all different kinds of birds. There are about 500 local chapters nationwide - find the one nearest to you, and see how you can help our feathered friends thrive. Visit https://www.audubon.org/ for more information.

Well Compensation and Well Abandonment Grants Available for Qualified Homeowners

https://dnr.wisconsin.gov/sites/default/files/topic/Aid/grants/wells/ARPAFlier.pdf

The WI DNR is asking for your help to get the word out to potential applicants about the **American Rescue Plan Act (ARPA) Well Grant** programs. These programs are providing funding to well and water system owners to replace, reconstruct, treat or abandon their wells or water systems.

A flier with a helpful overview of the grant programs, eligibility requirements and how to find more information can be found here. More information about the programs is also available on the grant program webpages:

- ARPA Well Compensation Grant Program webpage
- ARPA Well Abandonment Grant Program webpage

If you know anyone who might benefit from these grants please send them the flier or the program webpages. The DNR would appreciate your assistance in helping Wisconsin citizens receive funding if they are eligible!

For questions or more information, contact:
Carly Marty
Drinking Water and Groundwater Program
WI Department of Natural Resources
608-640-7132
Carlyn.Marty@wisconsin.gov

Baby Birds, Continued

The feathers might be wet though it's not raining, indicating discharge or an illness that inhibits the production of preening oils. Or maybe it's surrounded by flies, which might signal an open wound. During hot summer months, dehydration is also common - their belly is like a prune, wrinkled, shriveled and stuck in.

If you think you've found a sick or wounded fledgling or nestling, call a rehabber, state wildlife agency, or veterinarian immediately. If it's after hours, take the baby to a safe and warm location such as a closed box with air holes and a heating pad beneath it. **And even if your parental instincts kick in, <u>don't feed</u> the baby, she says.** "People have good intentions and think the baby bird is going to starve," Furr says. "But a lot of times it ends up doing more harm than good." If the chick is just kept in a dark place, its metabolism will slow down.

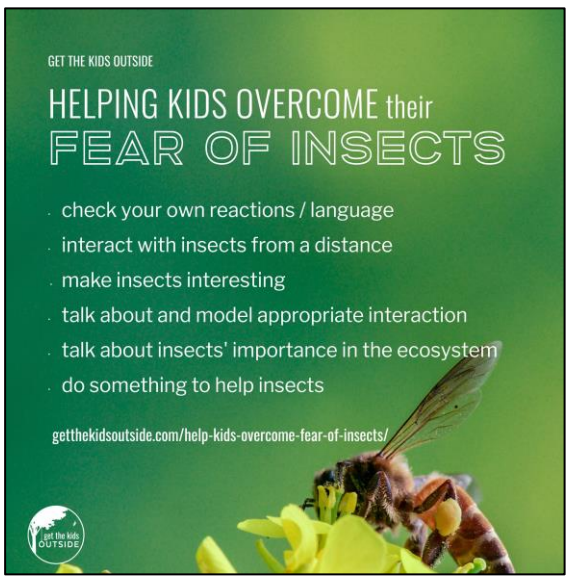
You might also come across a fledgling or nestling that's not injured, but at risk—such as from a prowling cat or human feet. Here's an easy fix: "Put it in a bush," Elbin says. In other words, hide the chick or put it in a place that's out of reach or out of the way.

If you're still not sure if the bird needs help or what to do, before doing anything, call your local wildlife rehabilitation center. Helping animals - and preventing fledgling kidnappings - is what they do.

7 Ways to Help Your Kids Overcome Their Fear of Insects

https://getthekidsoutside.com/help-kids-overcome-fear-of-insects/

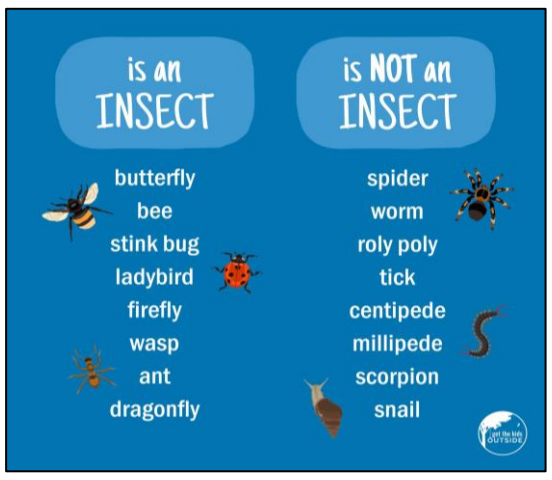
Spending time outside with your children can sometimes bring its own set of obstacles: bad weather, physical challenges, latent fears. One of those fears that can come to the surface during direct interaction with nature is the fear of insects. Rational or irrational, it can be a very powerful force that can hinder their joy and cause reticence to go outside. Sometimes the fear is all-consuming and explosive, sometimes it is timid and paralyzing. Either way, it's not something to be ignored. So how can we help our kids face and overcome their fear of insects?



1. Check your own reactions & language
This one might be the hardest to do, but should perhaps be where you start. Using some self-analysis, think about how you personally react to insects. Do you panic when you find a spider in your house? Do you squish an ant if it walks across your foot? What happens when a fly, wasp or bee comes near? What language are you using? Think about what your kids might be picking up from your own feelings or fear-based language.

2. Interact with insects from a distance
When easing your kids into positive interactions with insects, start from a distance. Try some of the following:

- **Take photos of the insects you see.** Taking photos can put your children in a position of power and give them an opportunity to look at the insect when they feel more comfortable. They can also zoom in and examine its different attributes.
- **Look at pictures in a book.** Your child may feel more comfortable examining an insect on paper first, giving them a chance to learn more about them in a 2-D experience.
- **Learn to identify different insects.** Being able to identify a few insects may help your child feel more empowered and invested. Think about insects they are likely to encounter in their daily life and start there. For example: When at rest, butterflies tend to fold their wings back ("closed"), whereas moths tend to spread them out ("open"). On your next outdoor adventure, see if you can spy one or the other. This is also a good opportunity to talk about the difference between harmless and harmful insects, an important distinction for them.
- **Check them out in a museum or nature center.** Museum displays are eye-catching and informative and sometimes allow interaction while being separated by a window or plexiglass. It also allows them to observe an insect's habitat up close without disturbing anything.



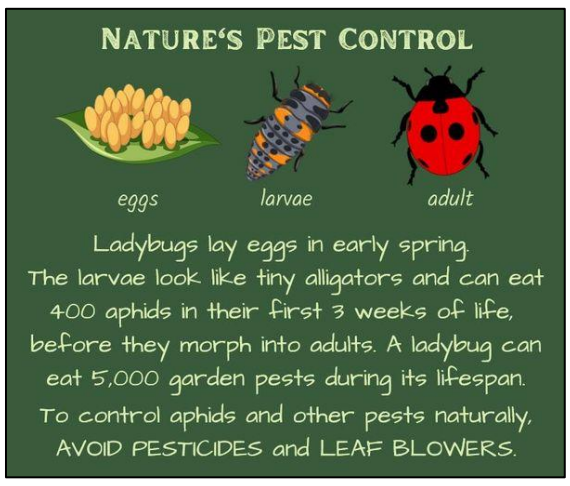
- **Read a fictional book or watch an animated movie featuring insects.** Books and movies can help your child connect to insects on an emotional level, from a perspective of fun and entertainment. This can be a good starting-point, and you can later relate those characters to real-life insects.
- **Play with plastic insects.** This can be a tactile experience that gives your child a chance to become familiar with an insect without fear of the insect reacting to their examination. While they're playing with the toy, take the opportunity to gently ask more about their fear and find out why they dislike insects.

3. Make insects interesting
It might be harder to your child to fear an insect if it becomes a bit more interesting to them. Feed your child's fascination and teach them fun facts about different insects:

- A bee's wing beats 190 times per second.
- Caterpillars have 12 eyes.
- Butterflies taste with their feet.
- Ants can lift and carry more than fifty times their own weight.
- There are close to a million species of insects around the world, with a possible 30 times that number yet to be discovered.

4. Talk about and model appropriate interactions with insects
Talk to your children about how to behave around insects, all by modeling appropriate behavior yourself (this can be hard!). A few things to keep in mind:

- **Stay calm when an insect lands on you.** If a wasp or bee lands on you, talk your children through the experience. "Oh, look at the pretty bee that just landed on me! He doesn't really want to hurt me, but I don't want him to be surprised or scared. I'm going to keep my body calm and my voice gentle until he is ready to leave."
- **Practice removing insects from your home.** Using a cup and a piece of cardboard, show them an effective and harmless way to remove a fly or wasp from your house. A clear cup is best, so they can see just where the insect is and feel safer knowing that it can't escape.
- **Do nightly tick checks.** It's good practice to regularly check for ticks, making sure that a negative interaction with a tick doesn't become worse!
- **Identify harmful/harmless insects.** Keep your kids informed about local insects so they understand the appropriate level of caution and what to do when they encounter them.



5. Talk about insects' importance in nature
Teach your kids about different *insects' roles in our lives.* They may feel differently about an insect once they find out how important it is for our environment.

- Insects are vital to our existence: 1/3 of our food is pollination-dependent.
- Not only are insects important to humans, they also serve as an important food source for other creatures (mammals, amphibians, birds, reptiles, etc).
- Insects help aerate, enrich and irrigate the soil, helping plants grow.

6. Do something to help insects
Now that they've started to recognize the importance of insects, help your kids feel more invested in the continued survival of insects.

- *Help native bee populations. In* this post, we outline 7 ways that kids can help save their native bee populations.
- *Make an insect hotel.* These structures can help insects find shelter and give them a place to build a nest.

- Plant native, **pollinator-friendly perennials** and see how much they love the flowers when they bloom. Gardening with insects in mind and creating pollinator habitats can make a big difference.
- As we know, volunteering can be very

Continued on page 6

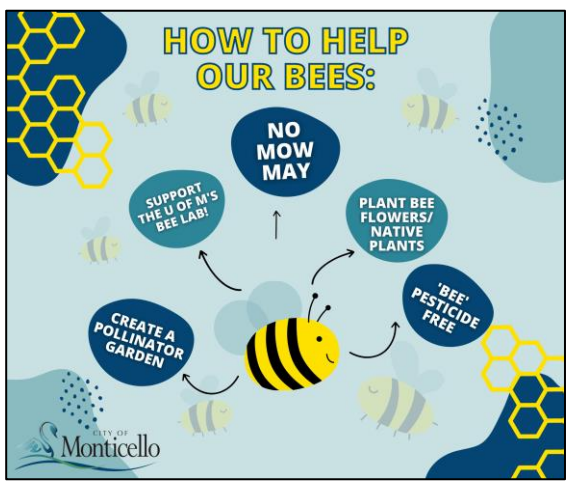
Welcome Pollinators to your Lawn with 'No Mow May'

https://wglbbo.org/news?start=4 & https://beecityusa.org/no-mow-may/

Have you heard about this Bee-friendly initiative? It's one more easy way to help our communities become good stewards of our natural resources and secure a healthier future for ourselves and our children and the pollinators that assure us of abundant food supplies.

What is No Mow May? Why is it Important?

The goal of No Mow May is to allow herbicide and pesticide-free lawns to grow unmown for the month of May. This creates vitally important habitat and forage for early season pollinators, and is particularly important in urban areas where floral resources are often limited.



Is it Really Effective?

Two years ago in Appleton, WI, Lawrence University professors, Israel Del Toro and Relena Ribbons, undertook a research project to test whether leaving May lawns unmown would have an advantageous impact on the bee population. 435 registered property owners signed up to be part of the study.

"The research project collected data on the abundance (the number of individuals) and species richness (the number of species) of flowers and bees found in unmown yards of a subset of the properties participating in No Mow May. They then compared those numbers to the abundance and richness of flowers and bees found in nearby urban parks that are regularly mowed. The findings were impressive! Not only were the abundance and richness of bees higher in the yards of properties participating in No Mow May, but they were way higher. Participating yards had three-times higher bee species richness and five-times higher bee abundance than nearby parks that had been mowed. This study was published in 2020 and is available for free download online."

Best Practices for Mowing Beyond May

We might think that if No Mow May is good, then No Mow June, July and August are good too. Not so fast…" Other studies have looked into how reducing the frequency of mowing throughout the growing seasons impacts bees. In a recent experiment conducted by Susannah Lerman, a research ecologist with the USDA Forest Service's Northern Research Station, Lerman and her collaborators explored whether different lawn mowing frequencies influenced bee abundance and diversity. The team mowed herbicide-free suburban lawns at different frequencies (every week, every other week, and once every three weeks) in Springfield, Massachusetts. The results of their study found bee abundance increased when lawns were mown every other week.

Mowing every three weeks resulted in more than double the number of flowers available in lawns (mainly dandelions and clover), and increased bee diversity - yet lowered overall bee abundance versus the every-other-week strategy. The researchers hypothesize that, while the three-week mowing cycle left more flowers in the lawn, the length of the competing turfgrasses made the flowers harder to find. Lerman and her colleagues documented a staggering 93 species of bees, with supplemental observations bringing the total number to 111 bee species - nearly a quarter of all bee species native to the area!"

What does a Bee Lawn look like?

Just growing longer turf grass isn't the point here. Beginning to alter the composition of your lawn to include more flowering species should be included in the plan." A "bee lawn" may include Dutch clover (which captures nitrogen and helps feed the lawn) as well as other low-growing flowering plants such as creeping thyme (*Thymus* spp.), self-heal (*Prunella vulgaris*), and others. Some plants, such as native violets (*Viola* spp.) may already be present and should be encouraged as they are valuable host plants for fritillary butterflies.

Getting Community Support

It's important to be strategic and intentional about your No Mow May. One of the major barriers we face when embracing a Now Mow May is the concern that our neighbors may view us as messy or neglectful. Here are some tips from the Xerces Society:

Educate your neighbors and passersby about your landscaping choices. Displaying a simple sign designating your yard as pollinator habitat can be the difference between it being seen as a neglected area to people viewing it as an important part of a thriving landscape. Xerces offers downloadable signs for No Mow May.

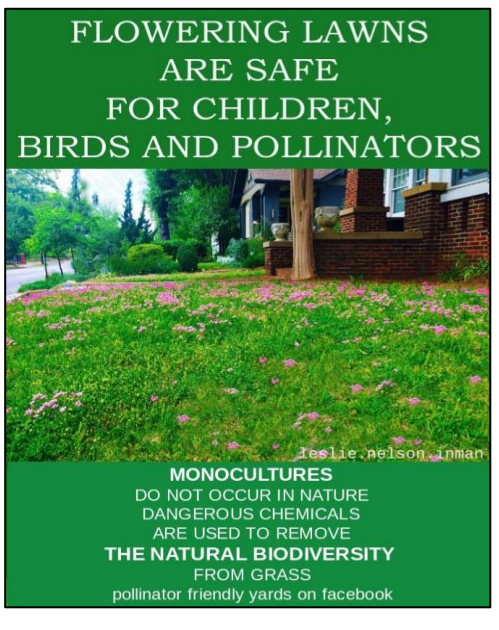
Engage with your city council, health department, or other local officials. Tell them what you are doing, why, and begin a conversation about how they can support natural landscapes in their community. This fact sheet from Penn State can help arm you with facts to overcome the common myths that have led to overly restrictive weed ordinances.

Suggest an "opt-in" program, such as a Natural Lawn Registration program to sidestep the need to re-write a health code ordinance. Under such a model, a homeowner may register their natural landscape with their local health department. The health department can then decline to fine registered properties as long as they are maintaining the natural landscape properly and not encouraging the spread of noxious weeds.

Maintain a mowed buffer. Keeping a mowed edge in front of or around a natural planting of a foot or two may be all that's needed to define "lawn" from "garden" and keep you in step with local ordinances or Homeowner Association guidelines. Maintaining a tidy mowed edge also makes a busy natural planting look less overwhelming, and makes these spaces look intentional rather than neglectful. *And remember, it's better to start small than to not start at all.* If not mowing your entire lawn seems too much for you the first year, why not consider carving out a smaller section of it to be a bee-friendly patch.

Resources for lawn alternative ideas, information, etc.:

- ✓ https://bluethumb.org/turf-alternatives/pollinator-lawn/
- ✓ www.beelab.umn.edu/learn-more/beelawn
- ✓ https://www.nrdc.org/stories/more-sustainable-and-beautiful-alternatives-grass-lawn
- ✓ https://www.nrdc.org/resources/toward-sustainable-landscapes-restoring-right-not-mow
- ✓ https://learn.eartheasy.com/guides/lawn-alternatives/
- ✓ https://www.nrs.fs.fed.us/pubs/55816 - lawn mowing frequency & bees study
- ✓ https://www.nytimes.com/2022/04/07/learning/lesson-plans/lesson-of-the-day-in-wisconsin-stowing-mowers-pleasing-bees.html



Invasive Species Trade-Up Days

May 15th to the 20th in Marinette!
Location: 1925 Ella Ct, Marinette, WI 54143
Sign up for our email list or follow us on social media to hear about event updates at www.wrisc.org and @wildriversISC

Swap that Invasive Shrub for a Native one instead!

Wild Rivers Invasive Species Coalition (WRISC) is hosting an Invasive Species Trade-Up Event in Marinette in May, where landowners can remove an invasive shrub from their property, such as Japanese Barberry, Exotic Honeysuckle, Burning Bush, Autumn Olive, or Buckthorn, and exchange the invasive for a voucher to replace it at participating greenhouses and plant sales with a native shrub! While we ask that you pre-register so we know how many people to expect, it is not required!

Each voucher you receive is worth $5 and you are able to receive up to $50 if you bring in 10 or more invasive plants!

Pre-Registration will open soon at www.wrisc.org/events

Questions?
Call
(906) 774-1550 x102
Email
wildriverscwma@gmail.com

Land Information Department Welcomes Back Summer Employee Boulin Beck

Hello, my name is Boulin Beck and I grew up in Peshtigo, Wisconsin. Growing up, I always had a great interest in studying nature and the world around me, which lead me to graduate with a Bachelor's degree in ecology from the University of Oshkosh in 2021.

Last summer I worked as a conservation LTE for the Marinette Land Information Department, and will be working with them again this year for a spring and summer position. I've worked on many things like Northern Pike passage and spawning habitat suitability, education with local communities around Marinette County, but mainly focused on invasive species control, specifically European Frog-bit.

Invasive Species – Managing the 'Spring Scaries'

https://www.wrisc.org/ &
https://www.facebook.com/WildRiversISC

Get a jump on the 'SPRING SCARIES' this year with proactive surveys and management of early-season invaders!!! Biological advantages help many invasive species emerge early in the year, extending their growing season and helping them establish territory and soak up beneficial nutrients before native species appear.

Lesser Celandine is not as well-known as other forest invaders, like Garlic Mustard, but its impact is just as devasting. Rosettes form in early spring, with bright, yellow flowers opening during March and April. Infestations of Lesser Celandine can obliterate spring ephemeral communities and harm sensitive habitats. It is also poisonous to humans and livestock.

Garlic Mustard may not be poisonous to eat, but it has allelopathic abilities that help it suppress the growth of native species surrounding it. In the spring, Garlic Mustard rosettes appear low to the ground. Leaves are light green and have scalloped edges. You can also identify Garlic Mustard by crushing a leaf between your fingers and seeing if it smells like garlic.

Dame's Rocket is another early-season invader that forms basal rosettes in the first year that overwinter and send up shoots quickly in the spring. Leaves are lanced shaped and flowers have four petals and range in color from white, pink, to purple.

Japanese Stiltgrass has been detected in Michigan but has not been found in Wisconsin. This annual grass is adaptable to a variety of soil, light, and moisture levels, but prefers wetlands and floodplains where its seeds can be spread by moving water. Japanese Stiltgrass germinates in early to mid-spring but flowers and seeds in mid-September through October, making its growing season exceptionally long. If you see Japanese Stiltgrass, please report it to your local state agency.

Hand-pulling is a great way to manage these invasive species - just make sure to dispose of them properly. We typically bag plants and then let them dry in the sun before landfilling them. For more about Invasive species, visit the website or Facebook address above or:

- https://dnr.wisconsin.gov/topic/Invasives
- https://fyi.extension.wisc.edu/wifdn/learn/invasive-species-i-d-and-impacts/
- https://www.nature.org/en-us/about-us/where-we-work/united-states/wisconsin/stories-in-wisconsin/weeds-at-their-worst-combatting-invasive-species/

Water Quality Trading Clearinghouse Contract Established in Wisconsin

https://dnr.wisconsin.gov/newsroom/release/70636

Wisconsin Water Quality Trading
Clearinghouse

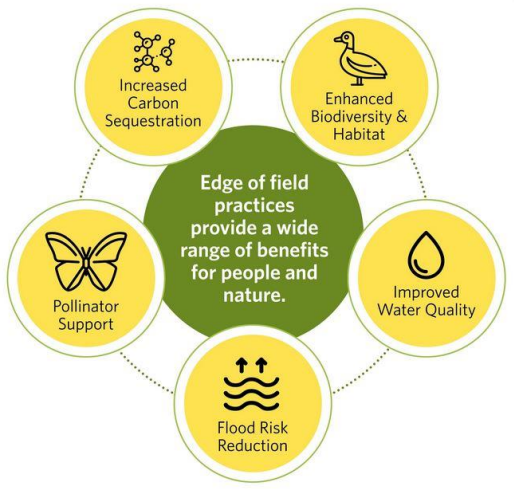
The Wisconsin Department of Natural Resources (DNR) today announced that the State of Wisconsin has entered into a contract to establish the nation's first market-based water quality trading clearinghouse. The clearinghouse is an innovative solution to water quality issues that compensates farmers and landowners, saves wastewater facilities money and protects Wisconsin's water resources.

"By working collaboratively, both point and nonpoint sources of nutrient pollution can be controlled through water quality trading. The clearinghouse now provides for an innovative, streamlined approach to facilitate and encourage water quality trading efforts throughout Wisconsin," said DNR Secretary Adam N. Payne.

The selected entity, Wisconsin Clearinghouse, LLC, is a wholly-owned subsidiary of Resource Environmental Solutions (RES). Although the organization is slated to launch an online platform to connect sellers and buyers of water quality trading credits in April 2023, the organization is prepared to begin processing transactions immediately.

Municipalities and industries throughout Wisconsin that own and operate wastewater treatment plants can now contract with the Wisconsin Clearinghouse to find and obtain water quality trades to help them meet their wastewater permit requirements. This approach allows treatment plant owners to protect local water quality while saving money on costly treatment upgrades. This clearinghouse model also encourages farmers and landowners to adopt pollution-reducing practices on their land in exchange for monetary compensation.

Water quality trading works by keeping pollution from entering surface water. For example, a participating farmer may let a field go to native prairie vegetation rather than planting row crops. This would allow phosphorus to stay on the field and be available for plants to absorb rather than flowing into surface water during heavy rains. The farmer can sell these phosphorus credits to a municipal wastewater plant that is required to reduce the amount of phosphorus it discharges.



Bipartisan legislation to create the water quality trading clearinghouse was passed into law in 2020. The legislation directs the Department of Administration (DOA) and the DNR to collaborate on a competitive solicitation process to procure a clearinghouse entity and then work on completing a contract with the selected entity. The contract was signed by DOA and RES on March 20, 2023. The DNR provided written approval of the contract.

Establishing the clearinghouse is one of several efforts to protect Wisconsin's vast water resources. Phosphorus limits were first adopted in Wisconsin in 2010 to protect surface waters from the harmful effects of excessive nutrient pollution. As part of the 2010 rule, water quality trading was promoted as a mechanism for point source dischargers to work with landowners and farmers to offset their phosphorus discharges by completing projects on the landscape to reduce nonpoint source phosphorus pollution from entering surface water.

For more about the clearinghouse, how to buy & sell credits, and more visit the website at https://wiclearinghouse.org/.

'Insects' continued from page 3

beneficial for a child. Look for **citizen scientist opportunities**, such as Mass Audubon's Firefly Watch and Xerces Society's Bumblebee Watch and Western Monarch Milkweed Mapper. (Read: *Citizen science for kids: engaging with nature while helping to save it*).

7. Be patient & let your kids set the pace
Please remember that fears aren't always rational, so take time to understand your child's feelings. Don't rush it. Give them time. And be patient with yourself as well!

Helping your kids overcome their fear of insects could indeed be a slow process, but the ultimate reward is worth it. Hopefully the fear will gradually be replaced with a sense of wonder, appreciation and curiosity for these creatures that play such an important role in our ecosystem.

Did you know that…
…**All bugs are insects, but not all insects are bugs**? Technically, "bugs" are an order of insects called Hemiptera.
…**Spiders aren't actually insects**, but your child may not make that distinction. Although they are both **arthropods** with exoskeletons, insects belong to the **Class Insecta**, whereas spiders belong to the **Class Arachnida**. Some distinctions are that insects have 3 body parts (head, thorax, abdomen), 2 compound eyes, 2 antennae, 4 or 2 or 0 wings, 3 pairs of legs and a segmented abdomen, while spiders have 2 body parts (cephalothorax, abdomen), 8 simple eyes, no antennae, no wings, 4 pairs of legs and an unsegmented abdomen.

Further information:

- https://runwildmychild.com/helping-kids-overcome-fear-of-insects/
- https://www.uniguide.com/ways-you-can-help-bees-butterflies-insects/
- https://happylearning.tv/en/arachnids/
- https://www.scientificamerican.com/article/as-insect-populations-decline-scientists-are-trying-to-understand-why/
- https://www.xerces.org/

Visit the Mountain Fire Tower this Summer!

https://www.fs.usda.gov/detail/cnnf/specialplaces/?cid=fseprd561471 and https://www.wjfw.com/news/connecting-the-dots-the-fire-towers-of-wisconsin/article_fd447056-4b4e-11ed-b245-cf384385e71f.html

Marinette County's neighboring Oconto County has an historic and exciting landmark to visit this summer - the Mountain Fire Lookout Tower. It's located about 2.5 miles north of Mountain, WI, off of Forest Road 2106/Old 32 on the Lakewood-Laona Ranger District.

Visitors can hike to the top of the tower for a breathtaking view of the Chequamegon-Nicolet National Forest and Oconto County. The tower is open daily, 8 a.m. to sunset, from May 1 to Nov. 1.

The Mountain Fire Lookout Tower was built in 1935 by the Forest Service and the Civilian Conservation Corps. It was once a part of an extensive lookout tower network in the former Nicolet National Forest. It was the first lookout tower in Wisconsin to be placed on the National Historic Lookout Register and the National Register of Historic Places. It was also the 41st lookout tower to be registered in the United States.

The Mountain Fire Lookout Tower was restored in 2015-16 with financial assistance from the Oconto County Economic Development Corporation, numerous local businesses, organizations, communities and residents. Employees from the Lakewood-Laona Ranger District spent more than 500 hours doing the restoration work.

Today, the 100-foot steel tower with a 7-by-7-foot cab is one of the few remaining lookouts on the east side of the Chequamegon-Nicolet National Forest. Of the 14 original towers on the forest, the Mountain Fire Lookout Tower is the only one where visitors may climb to the top.

Wisconsin once had a vast fire tower lookout network, mostly in the forested and most fire prone regions of the state. At the height of their use, 119 towers dotted the landscape. These steel structures were manufactured by the Aeromotor Company in Chicago, which specialized in Windmills used on farms. Many of the towers we see still standing today were built during the 1930s by the young men of the Civilian Conservation Corps. They didn't use cranes or safety harnesses, just one piece at a time, bolted together by hand. They also staffed them in the early years, along with their forest fire fighting duties.

Some towers were built with stairs, but most had a ladder. It's a long climb to the underside cab above. Finally, up a small ladder and through a hatch, and you're at the top. Once inside, the fire tower lookout monitored the forest between their tower and the horizon. The views from a lookout tower are amazing, as they are often built on the highest ground in the area. Depending on the weather conditions, you can see 10 or more miles.

If a smoke was sighted, the lookout used a compass table situated at the center of the cab, and binoculars to pinpoint its location. Its azimuth and distance was called in to a dispatch center. Other towers in the network would identify and report the same smoke, allowing the dispatch center to triangulate the location of a potential fire using a big map on the wall. With such large expanses of forest to monitor, forestry personnel could be quickly sent to inspect and fight the fire if necessary. Manned from May to September for many decades, their staffing was reduced to the peak forest fire season, between snow melt and green up in the spring.

Wisconsin's fire lookout towers served their purpose for over 75 years. In 2015, the 72 aging towers still in use were decommissioned. Today, the Wisconsin DNR monitors its forests for fires from above by airplane, relegating its towers to the history books. Only the Mountain Fire Lookout is open to the public.

For more, visit:

- https://www.travelwisconsin.com/natural-attractions-and-parks/mountain-fire-lookout-tower-312003
- https://foresthistory.org/research-explore/us-forest-service-history/policy-and-law/fire-u-s-forest-service/fire-lookouts/

Guided Spring Wildflower Walk at the Harmony Arboretum Hardwoods!

A Spring Wildflower Walk will take place from **9 to 11 a.m. Saturday, May 6**, in the Harmony Hardwoods Memorial Forest.

Enjoy the variety and beauty of native flowers. Participants may see such species as trillium (below), bloodroot, bellwort, Dutchman's breeches, and Spring beauty. Those attending should wear good walking shoes or hiking boots and dress for the weather. Insect repellent is recommended. About a one mile hike with some uneven terrain and a few inclines; if bad weather, event will be cancelled. Please meet at the pavilion by the parking area.

Harmony Arboretum and Demonstration Gardens has been developed into a conservation and horticulture education demonstration area. The arboretum includes a majestic hardwood forest, winding walking trails, a demonstration prairie, a children's garden, a shade house, and vegetable and flower gardens. It is open to the public year-round, free of charge.

It is located 7 miles west of Marinette on Hwy 64, then ½ mile south on County Hwy E on the east side of the road. (Google Maps: "Harmony Arboretum, Peshtigo, WI).

Report: State Tax Funding for Conservation and Parks has Steadily Eroded over Decades

Excerpts from https://wausaupilotandreview.com/2023/03/28/report-state-tax-funding-for-conservation-and-parks-has-steadily-eroded-over-decades/

Outdoor recreation contributed $7.8 billion to Wisconsin's gross domestic product in 2020. The following year, that grew 14 percent to $8.7 billion. Jason Stein, research director for the Wisconsin Policy Forum, said that underscores the public's strong interest and participation in Wisconsin's outdoor recreation economy, conservation and public lands. "We saw during the pandemic that really intensified as people saw the outdoors as a safe outlet when so many other pastimes had been taken away from them," Stein said.

The state's outdoor recreation economy is just one example of how the state relies on and benefits from its abundant natural resources, supporting more than 89,000 jobs. Wisconsin's timber industry ranks second in the nation for employment with around 61,000 workers and generates around $6.9 billion in value to the state's economy. Hunting and fishing license sales grossed $70 million in 2019, ranking the fourth-highest nationally.

However, a new report from the Wisconsin Policy Forum shows a striking decline in state tax-generated financial support for conservation, public lands and the environment. The report was funded by various organizations that include wildlife, conservation and real estate industry groups. Despite that support, Stein said the research group insists on independence and impartiality when producing its findings.

State tax funding for DNR sees steep declines in last 25 years

Wisconsin has witnessed a dramatic decline in general purpose revenue or state tax funding for the Wisconsin Department of Natural Resources. In the mid-nineties, the agency received $334 million in funding under the 1995-1997 state budget. Under the current budget, the Wisconsin Policy Forum states that revenue declined to $197.5 million. "It fell almost 41 percent without adjusting for inflation," Stein said. When adjusting for inflation, the funding under the 1995-1997 state budget would be equal to $632 million today. Stein noted that's a drop of nearly 69 percent.

The report points to shifting state tax funding for Medicaid, K-12 schools, state prisons and tax cuts as a key reason for the decline in general purpose revenue allocated to the DNR. The forum states the funding drop followed difficult post-recession budgets.

Fred Clark, executive director of Wisconsin's Green Fire, said there's a need for increased regulation of large farms known as CAFOs and more staff to work with property owners on shoreline zoning and lakeshore flooding. "The long-term ramp down of investment in especially GPR revenue toward the Department of Natural Resources is just preventing that agency from effectively addressing some of our greatest environmental challenges," Clark said.

Tim Gary, the DNR's budget and policy analyst, noted the agency's staffing and funding levels have fluctuated over time. "In 1996 and in 2017, the department realigned its operational structure and staffing," Gary said. "We've shuffled around bureaus, and we have come up with ways to continue to provide services to the public using the existing resources that we have today."

Data from the DNR shows general purpose revenue for state parks operations once made up around 40 percent of the budget four decades ago. Gary noted the shift away from state tax funding for parks began in the mid-90s and culminated in 2015. The Legislative Fiscal Bureau notes the budget eliminated general purpose revenue *completely* for parks operations under the 2015-2017 budget. To offset the loss of funding, the budget raised fees for parks admission, camping and trail use.

The report points to survey data from the National Association of State Parks Directors, saying it shows the state spent the lowest amount on parks nationwide at about $1 per visit in 2017. That compares to the national average of $3 per visit. On average, parks admission fees were updated once every five years until 2005, according to the DNR. Gary said there's money available in the state's forestry and parks accounts, but a change in state statutes is required to allow the DNR to spend that additional revenue. Gov. Tony Evers' budget would increase the agency's spending authority to allow funding of maintenance and development projects.

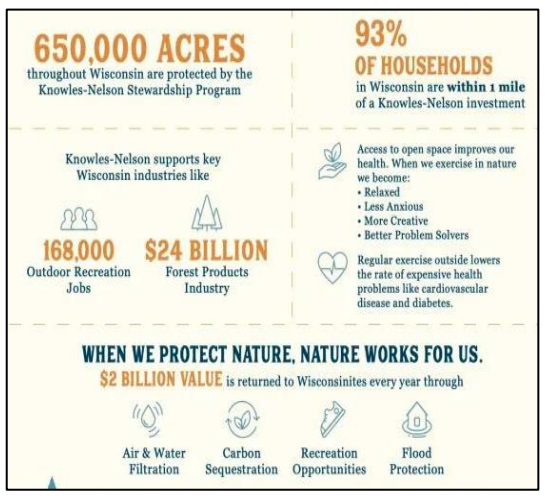
Funding is declining for fish and wildlife, land acquisition

Separate accounts established to fund fish and wildlife programs and the state parks system make up a bit more than two-thirds of the overall revenues within the state's conservation fund.

According to the state's fiscal bureau, around 69 percent of the fund's $295.7 million came from the DNR's forestry and fish and wildlife accounts. Funding for fish and wildlife fell to $70.7 million last year, down from $79.5 million in 2021.

Meanwhile, the state's land acquisition program has seen a steady erosion in funding as lawmakers have expressed concerns about preserving public lands and taking them off the tax rolls.

Since 1990, the Knowles-Nelson Stewardship program (https://knowlesnelson.org/) has helped the DNR purchase more than 723,000 acres of land using nearly $561 million in stewardship funds. Overall, the state has acquired more than 879,000 acres through federal and state sources, as well as donations.



From https://wisconsinbikefed.org/advocacy/everyone-benefits-from-the-knowles-nelson-program/

Charles Carlin, director of strategic initiatives for Gathering Waters, said the report demonstrates a lack of investment by policymakers. "The report just demonstrates that there's this enormous gap between how Wisconsin residents value the outdoors, both for the economy and for taking care of us for health and for recreation, and how the state actually values those same resources through the investments put into it or not in this case," Carlin said.

The Stewardship program is currently funded through 2026 at roughly $33 million, including $8 million in cash and $25 million through bonding. Debt payments from Stewardship borrowing are beginning to drop, but the report notes they remain above levels in the 1990s and early 2000s.

Report outlines potential conservation funding options

The report suggests a slate of options to raise funds for conservation. They include increasing hunting and fishing fees to match inflation, which could boost funding by $24 million. "A lot of the major hunting and fishing licenses in the state have not been increased since 2005," Stein said. "If you compare, in particular, our out-of-state licenses, like our out-of-state gun-deer licenses, they are lower than any of our neighboring states."

The Wisconsin Policy Forum also said the state could explore redirecting revenues from real estate transfer fees toward conservation of public lands. The state could also examine pursuing new sales tax revenues for parks. The report notes Minnesota has generated $2.9 billion for clean water, parks and the outdoors through a .375 percent sales tax.

Stein said Wisconsin could also explore donated easements and expanding local collaboration to fund parks, forestry and conservation services.

MAY | 2023

Outdoor Almanac

3
The distinctive orange-and-black plumage of Baltimore Orioles—named for the colors of the coat of arms of Lord Baltimore, the first proprietor of the Province of Maryland—make these birds easy to spot now. You can also listen for their clear, liquid whistle songs.

5
Full Moon

7
Height of the **Eta Aquarids meteor shower**. In the northern hemisphere, roughly 30 shooting stars per hour, most prominent after midnight, grace the dark sky.

9
In marshes and wetlands, female Red-winged Blackbirds are gathering nesting materials, such as cattails, reeds, and rootlets. While males are black with the distinctive red shoulders, females are all-over streaky brown and look like big sparrows.

10
Oak catkins (male flowers) are open. Gray Squirrels eat these flowers, which also support numerous caterpillar species that are important food sources for migrating birds.

12
Bird-a-thon, Mass Audubon's annual fundraiser and 24-hour birding competition, kicks off.

Mass Audubon bird-a-thon

15
Bobcats are giving birth to 2–4 kittens. They will remain with their mother for less than a year before heading off on their own.

Mass Audubon

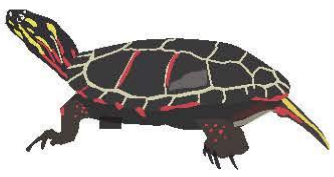
17
Height of the **spring warbler migration**. Listen to the dawn chorus and watch the treetops and shrubbery at sunrise and sunset for these beautiful little birds.

20
World Bee Day!
Bumblebee queens have emerged and are looking for good nest sites. They fly in distinctive zigzag patterns close to the ground in scrubby areas and field edges.

23
Tiny, strikingly blue **Spring Azure** butterflies patrol their territories in late afternoon at woodland edges and in forest clearings.

24
Elusive Eastern Box Turtles are mating. The sex of the hatchlings depends on the temperature inside the nest—eggs that are incubated at 70–80° F are more likely to be male and those at temperatures above 82° F are more likely to be female.

26
Keep an eye out for female Snapping and **Painted turtles** crossing roads as they climb uphill to soft, drier soil to dig nests and lay eggs.



27
Enjoy the beautiful white or occasionally pink blooms of our native flowering dogwoods along forest edges, or look for one of our most distinctive forest wildflowers, Jack-in-the-pulpit. Keep an eye out for the 1- to 2-foot-tall spathe (pulpit) that grows up and over the flower stalk (Jack).

massaudubon.org

Awesome April Auroras!

The auroras from Harmony Arboretum on Sunday, April 24. Photos by Anne Bartels.

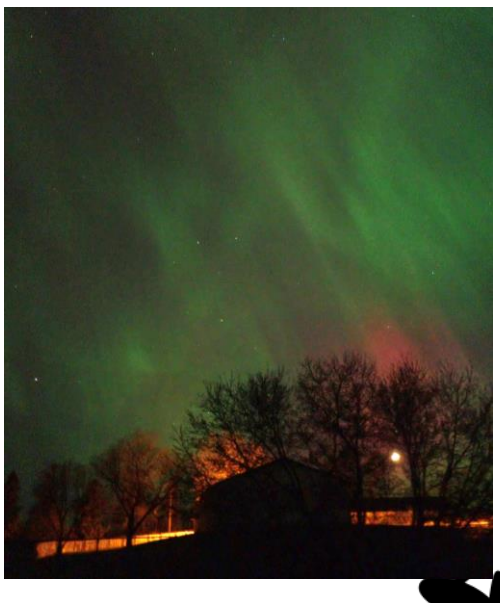
A severe geomagnetic storm on Sunday, April 23 saw the Northern Lights (auroras) visible as far south as California, Texas, Arizona, New Mexico and Arkansas, according to Spaceweather.com. They were also seen across the UK and northern Europe. The cause was a *coronal mass ejection* - a massive eruption of solar material from the Sun's corona - whose effects arrived earlier than anticipated.

Why is this happening? The Sun is more active than it has been for over a decade—and perhaps much longer. The solar cycle, also known as the sunspot cycle, is a roughly 11-year period during which our star waxes and wanes. It's now on the cusp of a powerful "solar maximum" peak in 2024 or 2025. That means more common X-class solar flares and coronal mass ejections, which cause geomagnetic storms—which in turn means more frequent, more intense and more southerly displays of aurora.

The colors of the northern lights are determined by a number of factors:

- the composition of gases in Earth's atmosphere
- the altitude where the aurora occurs
- the density of the atmosphere
- the level of energy involved

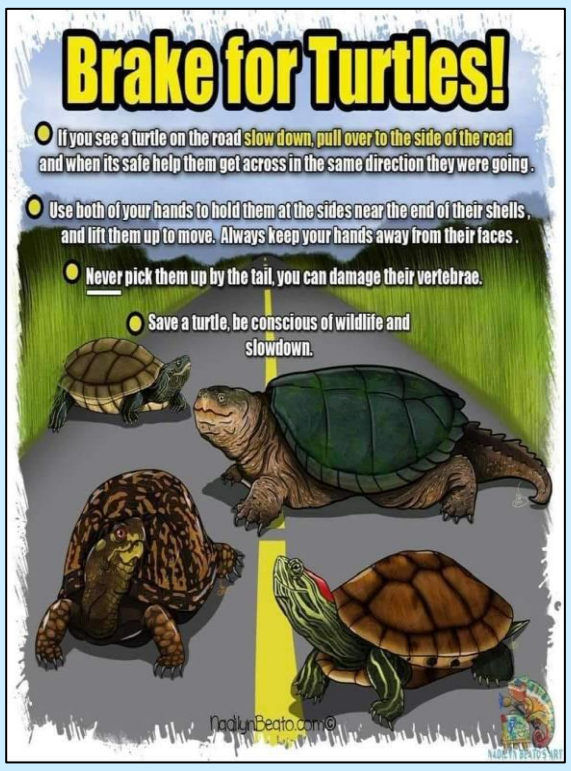
Visit https://aurora.live/2020/04/aurora-borealis-colors-explained/ for more information.



Help Protect Turtles During Turtle Nesting Season

https://dnr.wisconsin.gov/newsroom/release/57841

The Wisconsin Department of Natural Resources (DNR) is asking the public to give turtle mothers and the next generation of turtles a helping hand by following a few easy actions on ***World Turtle Day, May 23***, and throughout the turtle nesting season. Visit the site above for how you can help protect our shelled reptile friends this spring as they search for egg-laying sites and how to protect turtle eggs too.



NACD's 68th Stewardship Week will be held April 30 - May 7, 2023

https://www.nacdnet.org/news-and-events/stewardship-week/2023-one-water/

What is Stewardship Week?

NACD Stewardship Week is one of the largest national programs to promote natural resource conservation. Celebrated annually since 1955 between the last Sunday in April and the first Sunday in May, NACD Stewardship Week reminds us of our individual responsibilities to care for natural resources.

Stewardship Week will be focused on watersheds and the theme of "One Water." A **watershed** is an area of land that channels rainfall and snowmelt to creeks, streams, and rivers, eventually leading to outflow points such as reservoirs, bays, and the ocean. Those bodies of water are all connected, so every drop that falls becomes part of *one water*.

Watersheds can be any size and usually have some high points of land like hills, mountains, or ridges. When rain, sleet, or snow falls to the ground, the precipitation runs from those higher points to the lower points. Gravity pulls the water downhill until it reaches a body of water. If the land in the watershed is steep, the water usually runs off into rivers or streams. If the land in the watershed is level, the water will slowly flow into lakes or ponds, or seep into the soil and add to groundwater. If the watershed is close to the ocean, then tidal marshes, estuaries, and wetlands will be part of the watershed. **From the top of the mountain all the way to the coast, it is all *one water*.**

Visit Marinette County's Trails this Spring & Summer!

A trail sign in the Harmony Hardwoods at Harmony Arboretum & Demonstration Gardens in Peshtigo

If you are looking for places to hike, bike, ATV, go horseback riding, or just explore this summer, visit the Marinette County Tourism or Land Information Department websites for maps, information, and more! Marinette County has a variety of public lands to visit and take in the natural beauty of Northeastern Wisconsin. Maps are available for just about every outdoor pursuit, as well as waterfall tour maps, parks and campgrounds, and more.

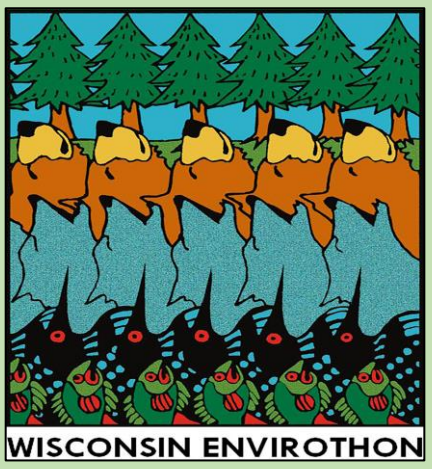
The Middle Inlet Horse Trails

- https://www.exploremarinettecounty.com/information/maps-and-guides/
- https://www.marinettecounty.com/departments/parks/parks-hiking-trail-maps/forms_and_documents/
- https://www.marinettecounty.com/departments/parks/general-information/campgrounds-and-parks/

For all of us trying to get in some 'de-cluttering' this spring….

2023 Wisconsin Envirothon Competition Held April 21st

https://wisconsinlandwater.org/our-work/youth-education/envirothon



The Wisconsin Envirothon was held Friday, April 21, 2023 in Rosholt, WI at the Wisconsin Lions Camp. Founded in 1988, Wisconsin Envirothon is the state's ultimate middle and high school environmental science challenge. Teams of five high school or five middle school students participate in the hands-on, outdoor field challenges designed by natural resources professionals and educators. This day-long event is an excellent opportunity for students to develop leadership and communication skills that champion a more sustainable and environmentally aware community.

The 2023 Current Issue was Adapting to a Changing Climate. Teams participated in a hands-on station competition and took exams based on four categories: Aquatic Ecology, Forestry, Soils & Land Use (below), and Wildlife. Each team also had to create a presentation about the current issue for a panel of natural resources professionals.

Sun Prairie East High School took the title of Overall winner at the High School level and will represent Wisconsin at the National Conservation Foundation-Envirothon taking place July 2023 at Mt. Allison University in New Brunswick, Canada.

WI Land+Water is a nonprofit organization that supports the local and statewide efforts of all county land conservation committee supervisors and conservation staff across Wisconsin. Its mission is to protect, conserve, and enhance Wisconsin's natural recourses by advocating for and supporting county conservation efforts, for current and future generations. Connect with the Wisconsin Envirothon on Facebook: https://www.facebook.com/wienvirothon.

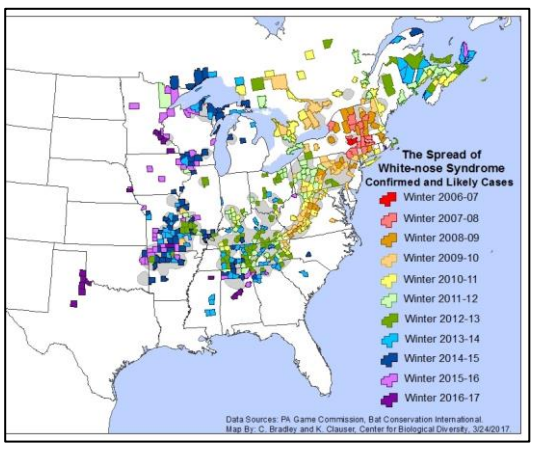
UW-Madison Researchers Studying New Approach to Protect Bats from White-nose Syndrome

https://www.wpr.org/uw-madison-research-study-bats-white-nose-syndrome-vaccine

A group of little brown bats show tell-tale signs of white-nose syndrome in a cave in New York.

A new strategy to combat the deadly white-nose syndrome decimating bat populations in Wisconsin and other states is being studied by researchers at the University of Wisconsin-Madison, the U.S. Geological Survey and U.S. Fish and Wildlife Service.

White-nose syndrome is a fungal infection that keeps bats awake as they try to hibernate during the winter months, which leads to them burning through fat stores and starving to death. The fungus was first discovered in New York in 2006 and first found in bats in Wisconsin in 2014.



Populations of northern long-eared bats, in particular, have declined by 97 percent or more across two Canadian provinces and 27 states including Wisconsin. That's raised alarms about risks to biodiversity and agriculture as bats eat pests targeting crops and even pollinate some plants. Northern long-eared bats were placed on the endangered species list by the Biden administration in 2022.

In March, the National Science Foundation and Paul G. Allen Family Foundation announced a $2 million grant for research at UW-Madison to see if a combination of a vaccine already developed by the university and an existing drug used to treat humans could turn the tide for Wisconsin's bats.

Bruce Klein is a professor of pediatrics, medicine, medical microbiology and immunology at UW-Madison. He's part of the team that developed the vaccine, which was initially aimed at treating a fungal infection in humans known as *blastomycosis*. Klein said lab tests showed it could also stimulate immunity in bats to the fungus that causes white-nose syndrome. More recently, Klein said UW-Madison graduate student Marcos Isidoro Ayza has been studying how receptors in bats' skin cells "serve as a trap door" for the fungus.

A researcher takes a saliva sample from a bat.

"And it (the fungus) has strategies to maintain itself inside the cells that we're learning about," Klein said. "And there are approved drugs that can target these receptors, some actually FDA approved, that have been used in human patients for treatment of cancer."

Klein said he couldn't name the drugs or explain the process further while the study is ongoing. He said he's hopeful the research will be completed and submitted for publication within the next six to nine months. Outside the lab, Klein said his team is collaborating with the U.S. Geological Survey and U.S Fish and Wildlife Service to study how bats in captivity react to specific dosages. With that data in hand, he said the next step will be finding the best way to treat bats in the wild.

Administering the white-nose vaccine to a bat.

"We don't invite the bats to queue up, you know, roll up their wing sleeves," Klein said. "So, that is a little bit tricky." He said researchers are interested in developing formulations of the compounds that can be sprayed and adhere to bats' fur as they enter caves for hibernation. He said northern long-eared bats have a useful habit of hibernating in tight clusters and grooming one another.

"So if we don't spray all the bats, those that are grooming one another will presumably be exposed to the vaccine and ingest it through grooming," Klein said.

For more information, visit:

- https://www.usgs.gov/news/national-news-release/white-nose-syndrome-killed-over-90-three-north-american-bat-species
- https://news.nau.edu/origins-white-nose-syndrome/
- https://www.treehugger.com/bat-facts-4864066

Joint Chiefs' Partnership Supports Forestry & Wildlife Conservation in Northeastern Wisconsin

https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/wisconsin/news/joint-chiefs-partnership-supports-forestry

The Northeast Wisconsin Forestry and Wildlife Partnership project has been developed through the Joint Chiefs' Landscape Restoration Partnership (JCLRP) to address wildfire threats, water quality, and wildlife habitat. The JCLRP enables the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) and the U.S. Forest Service to collaborate with agricultural producers and forest landowners focused on conservation and restoration efforts.

These conservation efforts aim to achieve several landscape-level outcomes, including reductions in storm-caused fuel loads and fire risks, improving water quality and aquatic habitat, increasing habitat for species such as golden-winged warblers, brook trout, and monarch butterflies, and promoting forest health through oak wilt prevention, emerald ash borer mitigation and planting resilient tree species.

The project area is centered on the Lakewood-Laona Ranger District of the Chequamegon-Nicolet National Forest (CNNF), and includes portions of the Eagle River-Florence Ranger District, private and Tribal lands in Florence, Forest, Langlade, **Marinette**, Menominee, Oconto, Oneida, and Shawano counties.

Some of the conservation priorities identified by the Partnership for Fiscal Year 2023 include:

- Forest Management Plans
- Trout Stream Crossing Improvement
- Wildfire Hazard Reduction/Storm Damage Cleanup
- Oak Wilt and Emerald Ash Borer Mitigation

Partners include: American Bird Conservancy, American Woodcock Society, Lumberjack Resource Conservation and Development Council, **Marinette County Land Information Department**, My Wisconsin Woods, Northwoods Land Trust, Ruffed Grouse Society, Trout Unlimited, University of Wisconsin Extension, Wisconsin Department of Natural Resources, Wisconsin Tribal Conservation Advisory Council, Wisconsin Woodland Owners Association, & Wisconsin Young Forest Partnership.

Landowners interested in applying for funding should visit the website or contact the Lena NRCS Service Center (in Oconto County) at (920) 829-5406 (physical address: 410 1/2 E. Main Street, Lena, WI 54139.

Hummingbird Torpor Looks Strange but it's Totally Normal

https://www.birdsandblooms.com/birding/attracting-hummingbirds/hummingbird-torpor/

Hummingbirds can drop their internal temperature, inducing a temporary state of torpor, which means they need less energy, and therefore less food, to withstand frigid temperatures. If you spot a motionless hummingbird in an unusual position, don't be alarmed. Learn what the experts say about hummingbird torpor below.

Hummingbirds Enter Torpor to Conserve Energy

"I saw a hummingbird hanging upside down from my feeder by one foot. As I neared, it flew away. What happened to it?" asks Birds & Blooms reader Margaret Hocker of Metropolis, Illinois.

Kenn and Kimberly Kaufman: Hummingbirds have a bizarre way of conserving energy. Usually at night, during periods of cold and sometimes when they're perched at a feeder, hummingbirds can enter a deep, sleep-like state known as ***torpor***, when all body functions slow dramatically. Metabolism slows by as much as 95 percent, and heart rate and body temperature drop significantly. Torpor allows them to conserve precious energy and survive surprisingly low temperatures.

Torpor Helps Hummingbirds Survive in Cold Weather

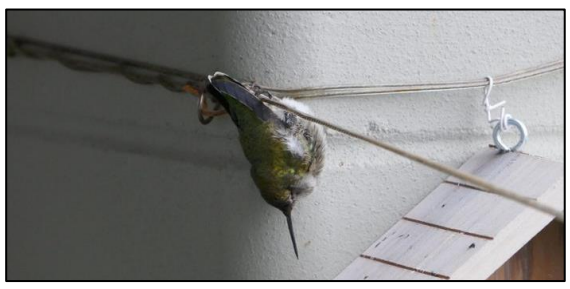
"Hummingbirds visit my feeders every day, year-round. Where do they sleep at night in chilly weather, and how do they survive the cold? asks Kay Teseniar of Kelso, Washington.

Kenn and Kimberly: Hummingbirds often find a twig that's sheltered from the wind to rest on for the night. Also, in winter they can enter a deep sleep-like state known as torpor. All body functions slow down dramatically; metabolism drops by as much as 95 percent, and heart rate and body temperature decline significantly. In spite of their fragile appearance, they're tough little critters!

"This male broad-tailed hummingbird (top, next column) left his more tropical winter home in the south and arrived in Colorado's Rocky Mountains just in time for a spring snow. Not to worry, they are able to survive freezing temperatures by entering a state of torpor, where their metabolism slows way down to conserve energy during the night. Early in the

morning, he was already in position on his favorite perch keeping his eye on the sky to fiercely protect his preferred feeder on our deck. By mid-morning, the sun had melted away, and all was warm and bright. These little birds may be small, but they are mighty!" says Mindy Musick King.

"One morning, a female hummingbird landed on the feeder, slowly leaned back and eventually ended up upside down. She ignored the other birds and, after a few minutes, flew away. What causes this behavior?" asks Donna Jenkins of Chesapeake, Virginia.



Kenn and Kimberly: This odd behavior seems to happen because hummingbirds have weak feet and extreme variations in energy levels. Hummingbirds enter torpor (lowered breathing and heart rate) to conserve energy. This usually happens on cold nights, but sometimes they go into a torpid state during the day. When they're sitting, their feet automatically clamp down, but on a smooth perch, they may slip and wind up hanging upside down. Usually this doesn't last long and the bird isn't any worse off when it awakens.

Freeze Posture in Birds

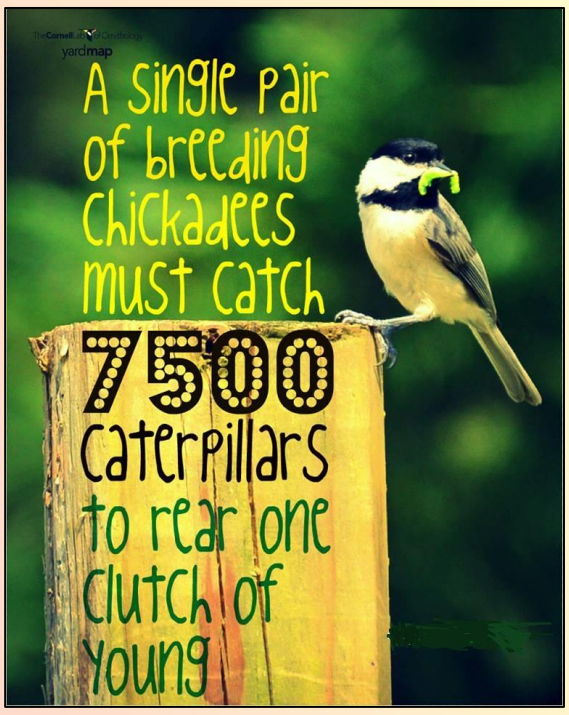
"This red-breasted nuthatch didn't move for at least 10 minutes. Do nuthatches go into torpor, like hummingbirds, or was something else going on?" asks Michele Stark of Grand Blanc, Michigan.

Kenn and Kimberly: What your little nuthatch is doing isn't torpor, but a reaction to a predator. We call this "freeze posture," and it happens when there's a predator nearby. Even when birds appear to be completely relaxed, they are on constant alert for predators. When a hawk swoops in, smaller birds have to make a split-second decision - fly for cover or freeze. Often they'll decide that the best chance for survival is to freeze rather than take their chances in flight against something like sharp-shinned or Cooper's hawks, which are incredibly fast flyers and masters of aerial maneuvers.

- https://www.audubon.org/field-guide/bird/ruby-throated-hummingbird

Caterpillar: It's What's for Dinner

https://nestwatch.org/connect/news/caterpillar-its-whats-for-dinner/



This time of year, newly-fledged birds begin showing up at bird feeders, where their parents show them how to use this valuable resource. You might think that those chickadees who visited your feeders all summer were taking seeds back to their young, but more likely they were grabbing a quick bite for themselves before rushing off to find more insects for the kiddos.

A single pair of breeding chickadees must find 6,000 to 9,000 caterpillars to rear one clutch of young, according to Doug Tallamy, a professor of entomology and wildlife ecology at the University of Delaware. Even though seeds are a nutritious winter staple, insects are best for feeding growing fledglings. Surprisingly, **insects contain more protein than beef**, and 96% of North American land birds feed their young with them. Although fly maggots and spiders might curl your lip, to a chickadee, these are life-saving morsels full of fat and protein.

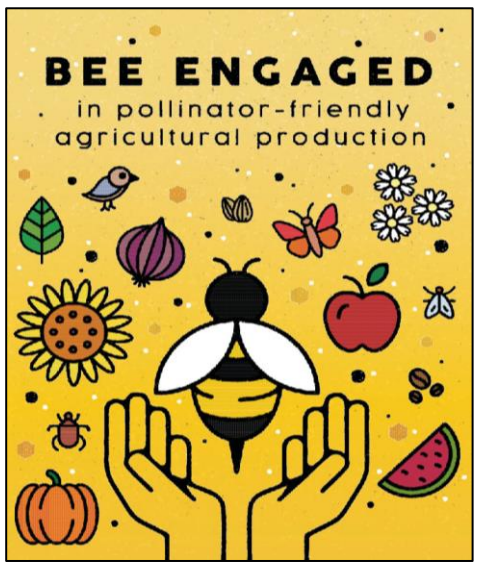
Here, we offer some tips to help you plan your fall garden chores around birds and "beef up" your yard for next spring:

- Don't mow wild goldenrods; their seeds are edible, and they shelter insect larvae inside those hard round galls in the stems which chickadees and woodpeckers love to excavate.
- Plant at least one native tree or shrub in your yard. Cooler weather is great for planting woody species.
- Resist the urge to deadhead the last round of spent flowers. Let the seedheads provide food for migrating birds.
- Phase out pesticides in your yard, and let the birds help with pest control.

If you've never seen a clutch of chickadees fledge, take two minutes to watch a video captured by Nancy Castillo of two Black-capped Chickadee nestlings making their first foray into the world. Now when you see fledglings in late summer, you can really appreciate how many insects are necessary to successfully raise these youngsters. Visit us online for more information on landscaping for nesting birds.

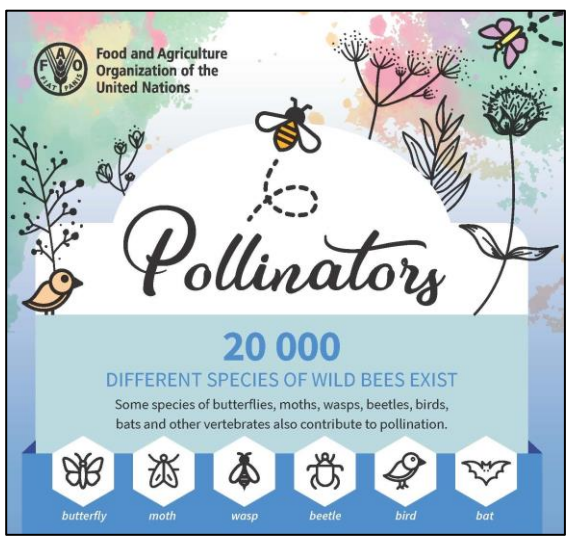
World Bee Day is May 20th!

https://www.fao.org/world-bee-day/en/



For centuries bees, among the hardest working creatures on the planet, have benefited people, plants and the environment. By carrying pollen from one flower to another, bees and other pollinators enable not only the production of an abundance of fruits, nuts and seeds, but also more variety and better quality, contributing to food security and nutrition.

The United Nations General Assembly started World Bee Day in 2018, thanks to the efforts of the Government of Slovenia with the support of the International Federation of Beekeepers' Associations (www.apimondia.org/). By observing this day each year, we can raise awareness on the essential role bees and other pollinators play in keeping people and the planet healthy, and on the many challenges they face today.



Today bees, pollinators, and many other insects are declining in abundance. This day provides an opportunity for all of us – whether we work for governments, organizations or civil society or are concerned citizens – to promote actions that will protect and enhance pollinators and their habitats, improve their abundance and diversity, and support the sustainable development of beekeeping.

The global World Bee Day ceremony, which will be held in hybrid format at the FAO headquarters on Friday, May 19, will be an opportunity to raise awareness of the importance of adopting pollinator-friendly agricultural production practices to protect bees and other pollinators, while contributing to the resilience, sustainability and efficiency of agrifood systems. Visit the website above for more information.

Visit below for more about Wisconsin's bees!

- https://pollinators.wisc.edu/bee-identification/
- https://dnr.wisconsin.gov/topic/endangeredresources/pollinators.html

Monarch Butterfly Migration

https://monarchwatch.org/migration/

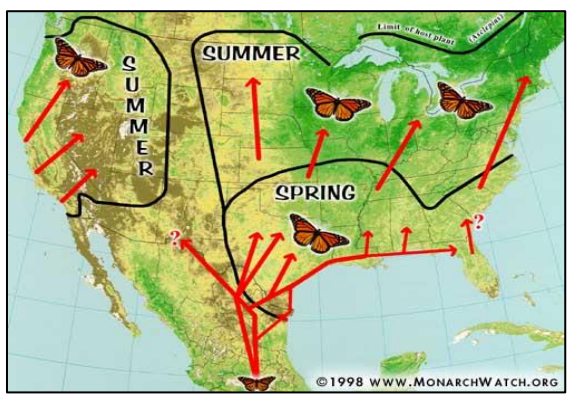
Monarch butterflies are on their way back to the Upper Midwest, so we should be seeing them – and their larval plant hosts, the milkweed species – into May and early June.

In all the world, no butterflies migrate like the Monarchs of North America. They travel much farther than all other tropical butterflies, up to three thousand miles. They are the only butterflies to make such a long, two way migration every year. Individuals only make the round-trip once. It is their children's grandchildren that return south the following fall.

When the late summer and early fall Monarchs emerge from their pupae, or chrysalides, they are biologically and behaviorally different from those emerging in the summer. Even though these butterflies look like summer adults, they won't mate or lay eggs until the following spring. Fat, stored in the abdomen, is a critical element of their survival for the winter. This fat not only fuels their flight of one to three thousand miles, but must last until the next spring when they begin the flight back north.

As they migrate southwards, Monarchs stop to nectar, and some researchers think they conserve their "fuel" in flight by gliding on air currents as they travel south. Another unsolved mystery is how Monarchs find the overwintering sites each year. Somehow they know their way, even though the butterflies returning to Mexico or California each fall are the great-great-grandchildren of the butterflies that left the previous spring.

Monarchs east of the Rockies migrate each year to the mountains of central Mexico. Millions and millions of butterflies from the central and eastern Canadian provinces and the eastern and midwestern United States fly south to Mexico. The sites the Monarchs use during the winter have particular characteristics that enable their survival, and are important because they provide the Monarch with the right overwintering conditions. These conditions are found in oyamel fir forests, which occur in a very small area of mountain tops in central Mexico.



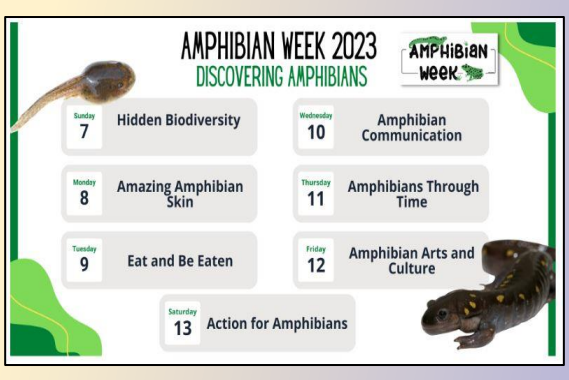
As winter ends and the days grow longer, the Monarchs begin to mate and move lower on the mountainsides. They leave Mexico during the second week of March, flying north and east looking for milkweed plants on which to lay their eggs. If they return too early, before the milkweed is up in the spring, they will not be able to lay their eggs and continue the cycle. Females lay eggs on the milkweeds they find as they fly, recolonizing the southern United States before they die.

Amphibian Week Is May 7-13

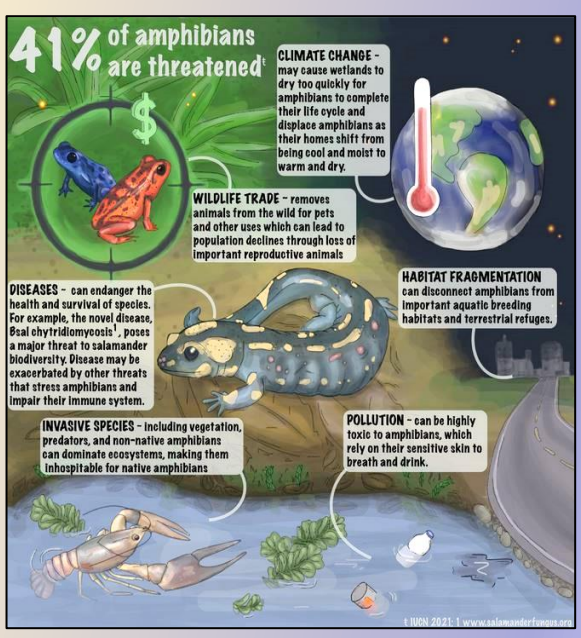
https://www.nps.gov/articles/000/amphibian-week.htm

Toads eat many invertebrates that cause damage to garden plants, like beetles & slugs.

You may wonder, why do amphibians need this special recognition? For starters, amphibians are unique. They begin their lives in the water, but most of their adult life is on land. And they are *ectothermic*, meaning their body temperature relies on external sources, like a rock heated by the sun or a river or lake. Amphibians are sensitive to invasive species, drought, disease, and other changes where they live. Researchers study amphibians because they often show early signs of stressors, like disease and climate change.

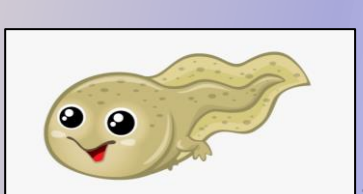


There's another reason to recognize amphibians: many are in danger. **About one third of all amphibian species are in danger of extinction.** Many animals rely on amphibians for food, so when they die off, it affects the entire natural area. *Some of the threats amphibians face include disease (like the ranavirus or chytrid fungus), changes in snowpack/rainfall, loss of wetlands, and habitat loss.*



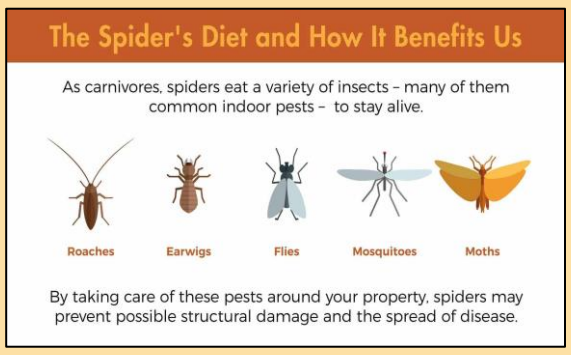
Join the movement on Facebook, Twitter, and Instagram May 7-13, 2023. All week, Partners in Amphibian and Reptile Conservation (PARC) and other partners will be sharing information about amphibians, how important they are, the threats they face, and how you can help them. Use #AmphibianWeek, #AmphibianWeek2023 to share.

For more, see also https://www.amphibians.org/amphibianweek/.



Be Kind to Spiders, Even if you Don't Like Them….

Even if spiders and their arachnid cousins creep you out, there are many reasons you should just leave them alone. Even though *Save a Spider Day* was in March, see below for why they are fascinating and should be left to live their spider lives.



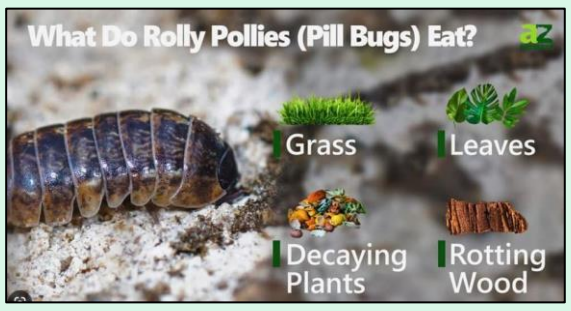
Fishing, or 'dock' spiders, are the largest species of spiders in Wisconsin. There are three species, with the largest at about 3" across (female – the males are smaller).

https://www.si.edu/stories/eight-strange-true-spider-facts & https://www.earthkind.com/blog/spiders-important-whats-purpose/

Meet the Rolly-Polly, or Pillbug

Have you ever lifted up a rock and found lots of little "rollie-pollies" living in the moist, dark soil underneath? Those humble pill bugs may be one of the most interesting creatures in your garden! Pill bugs (also called rollie-pollies) and their relative sow bugs (which do not curl up) are more closely related to shrimp and crayfish than insects. They are the only crustaceans that have adapted to living their entire life on land.

Sowbugs and pillbugs are scavengers and feed mainly on decaying organic matter and are important to the regeneration of healthy soils. Pill bugs can process heavy metals, such as cadmium, removing them from tainted soil. They are very important decomposers in contaminated soils that many other species cannot tolerate. They rarely damage garden plants.



The next time you lift a rock and see pill bugs, know that they are garden friends doing important work to help keep our soil healthy!

Eight Facts about the Roly-poly.

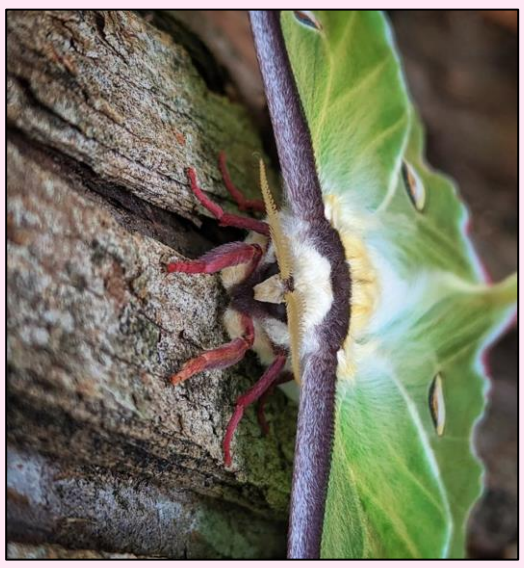
- Roly-Poly is just one of their names. They are also known as doodle bugs, wood shrimp and woodlice. People in the UK refer to them as chiggypigs, penny sows, and cheesybugs.
- They are not really bugs. They are crustaceans. They are more closely related to lobsters, crabs and shrimp!
- They have gills. They breath with gills like their ancestors. This is why they are more active at night and spend the daylight hours in wet, damp areas under things like logs.
- They roll into a ball when disturbed. This is a defense mechanism that evolved to protect the bugs' soft underparts from predators.
- They compost soil. By chewing up rotting vegetation and returning it back to the soil, they help speed up decomposition and provide an incredible to gardeners.
- They eat metals. They are able to take in heavy metals such as copper, zinc, and lead, and then crystallize them in their bodies.
- They carry their eggs in a pouch. Just like other crustaceans, female pill bugs have a brood pouch on their underside. The females carry their eggs in the pouch for two to three months until they hatch. Even after hatching, they return to the pouch and continue to grow.

https://www.treehugger.com/roly-poly-pill-bug-facts-important-environment-4864410

Love for the Luna Moth

https://www.facebook.com/InDefenseOfPlants

Luna moths (Actias luna) are among the most spectacular insects one can find in North America. They are huge compared to most other species and the adults don't have functional mouths/digestive systems. They live out their short adult lives on the fat reserves they built as caterpillars, living only long enough to mate and reproduce.



Their caterpillars feed on the leaves of a variety of trees including birches (Betula spp.), persimmon (Diospyros virginiana), sweetgum (Liquidambar styraciflua), hickories (Carya spp.), walnuts (Juglans spp.), and sumacs (Rhus spp.). Plant these if you want to provide them with host plants.

If you want to give this species a fighting chance on your landscape, also consider leaving fallen leaves instead of raking, blowing, or mulching (they overwinter in leaf litter), reduce the use of pesticides, and turn off your lights at night (moths can't navigate when light pollution is high).

Luna moth cocoon using a leaf as part of the structure. Leave leaves over winter to protect moth and butterfly pupae.